

REMARKS

Applicants respectfully request reconsideration of the present U.S. patent application. Claims 1-16 stand rejected under 35 U.S.C. § 112, first paragraph. Claims 1-16 also stand rejected under 35 U.S.C. § 103. No claims have been amended, canceled or added. Therefore, claims 1-16 remain pending.

Claim Rejections - 35 U.S.C. § 112

Claims 1-16 were rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. In particular, Examiner contends that the claim limitation “an outer periphery of the emitter region occupies a perimeter of a base mesa region” is not supported the Specification, and has been ignored in examining the present patent application. See Office Action, page 2, lines 13-15. However, Applicants direct Examiner’s attention to, for example, Paragraph [0033], lines 14-17 of the Specification, which support this claim limitation. Thus, Applicants submit that the rejection under 35 U.S.C. § 112, first paragraph, has been overcome. Applicants therefore respectfully request that the Examiner withdraw the rejections of claims 1-16 under 35 U.S.C. § 112, first paragraph.

Claim Rejections - 35 U.S.C. § 103

Rejections of Claims 1-16 based on *Chang* in view of *Chau*

Claims 1-16 were rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 5,266,819 issued to Chang et al. (*Chang*) in view of U.S. Patent No. 5,512,496 issued to Chau et al. (*Chau*). For at least the reasons set forth below, Applicants submit that claims 1-16 are not rendered obvious by *Chang* in view of *Chau*.

Claim 1 recites the following:

a bipolar junction transistor in which a base contact region forms a fishbone configuration having a spine with at least one base finger that extends from one side of the spine and at least one base finger that extends from a second side of the spine, wherein an inner periphery of an emitter region is adjacent to a periphery of said fishbone configuration, and an outer periphery of the emitter region occupies a perimeter of a base mesa region.

Chang discloses a self-aligned collector-up heterojunction bipolar transistor (HBT). See col. 1, lines 46-47 and 58-59; col. 2, lines 15-16. Applicants agree with Examiner that *Chang* does not disclose a bipolar junction transistor in which a base contact region forms a fishbone configuration having a spine with at least one base finger that extends from one side of the spine and at least one base finger that extends from a second side of the spine. However, Examiner cites *Chau* as disclosing these limitations of claim 1. *Chang* also does not disclose a bipolar junction transistor in which a base contact region forms a fishbone configuration having a spine with at least one base finger that extends from one side of the spine and at least one base finger that extends from a second side of the spine, wherein an inner periphery of an emitter region is adjacent to a periphery of said fishbone configuration, and an outer periphery of the emitter region occupies a perimeter of a base mesa region.

Chau discloses a collector-up bipolar transistor structure having a plurality of unit transistors connected in parallel. See col. 2, lines 27-29; col. 7, lines 40-44. The unit transistors include collector contact fingers connected to a collector contact pad. See Fig. 7; col. 5, lines 62-64. The collector contact fingers are straddled by base contact fingers that are connected to a base contact pad, and emitter contact pads extend outside of an active region. See Fig. 7; col. 5, line 64 - col. 66, line 2. *Chau* does not disclose a bipolar junction transistor in which a base contact region forms a fishbone configuration having a spine with at least one base finger that extends from one side of the spine and at least one base finger that extends from a second side of the spine, wherein an inner periphery of an emitter region is adjacent to a periphery of said

fishbone configuration, and an outer periphery of the emitter region occupies a perimeter of a base mesa region.

Thus, *Chau* fails to cure the deficiencies of *Chang* pointed out by Applicants. Therefore, *Chang* in view of *Chau* fails to disclose at least one limitation of claim 1. Consequently, claim 1 is not rendered obvious by *Chang* in view of *Chau* for at least the reasons set forth above. Applicants therefore respectfully request that the Examiner withdraw the rejection of claim 1 under 35 U.S.C. § 103.


Claims 2-16 depend from claim 1. Because dependent claims include the limitations of the claims from which they depend, Applicants submit that claims 2-16 are not rendered obvious by *Chang* in view of *Chau* for at least the reasons set forth above. Applicants respectfully request that the Examiner withdraw the rejections of claims 2-16 under 35 U.S.C. § 103.

CONCLUSION

For at least the foregoing reasons, Applicants submit that the rejections have been overcome. Therefore, claims 1-16 are in condition for allowance and such action is respectfully solicited. The Examiner is respectfully requested to contact the undersigned by telephone if such contact would further the examination of the application.

Respectfully submitted,

Dated: November 6, 2008



Joseph A. Pugh
Reg. No. 52,137

TriQuint Semiconductor, Inc.
2300 NE Brookwood Parkway
Hillsboro, OR 97124
(503) 615-9616